are non-limiting. In the drawings, for illustrative purposes, the size of some of the elements may be exaggerated and not drawn to a particular scale. Additionally, elements shown within the drawings that have the same numbers may be identical elements or may be similar elements, depending on the context.

[0552] Where the term "comprising" is used in the present description and claims, it does not exclude other elements or steps. Where an indefinite or definite article is used when referring to a singular noun, e.g., "a," "an," or "the," this includes a plural of that noun unless something otherwise is specifically stated. Hence, the term "comprising" should not be interpreted as being restricted to the items listed thereafter; it does not exclude other elements or steps, and so the scope of the expression "a device comprising items A and B" should not be limited to devices consisting only of components A and B. This expression signifies that, with respect to the present disclosure, the only relevant components of the device are A and B.

[0553] Furthermore, the terms "first," "second," "third," and the like, whether used in the description or in the claims, are provided for distinguishing between similar elements and not necessarily for describing a sequential or chronological order. It is to be understood that the terms so used are interchangeable under appropriate circumstances (unless clearly disclosed otherwise) and that the embodiments of the disclosure described herein are capable of operation in other sequences and/or arrangements than are described or illustrated herein.

What is claimed is:

1. A method for adjusting a flow rate of a fluid line, the method comprising:

determining a subset of pixels within a plurality of pixels of interest, wherein each pixel of the plurality of pixels of interest is determined to be within the subset of pixels when there is a path to a baseline corresponding to a drip chamber; and

estimating a characteristic of a drop within the drip chamber in accordance with the plurality of pixels of interest.

2. The method according to claim **1**, wherein the baseline is a predetermined set of pixels within an image sensor.

3. The method according to claim **1**, wherein the plurality of pixels of interest are identified by comparing the image to a background image.

4. The method according to claim **3**, further comprising initializing the background image.

5. The method according to claim **3**, further comprising updating the background image using the image captured by an image sensor.

6. The method according to claim **5**, wherein the background image is updated in accordance with:

$$P_{background,ij}=P_{background,i,j}(1-\alpha_{background})+\alpha_{background}P_{input,i,j}.$$

7. The method according to claim **1**, further comprising updating an array of variances using the image captured by an image sensor.

8. The method according to claim **7**, wherein the array of variances is updated in accordance with:

$$\sigma_{temp}^{2}=(P_{background,i,j}-P_{input,i,j})^{2}$$

$$\sigma_{backgund,i,j}^{2}=\sigma_{background,i,j}(1-\beta\text{background})+\beta_{background}\sigma_{temp}^{2}.$$

9. The method according to claim **3**, further comprising updating an array of integers in accordance with the image captured by an image sensor.

10. The method according to claim **9**, wherein each integer of the array of integers corresponds to a number of updates of a pixel of the background image.

11. The method according to claim **10**, wherein the comparison of the image to the background image only compares pixels within the image to pixels within the background image if a respective integer of the array of integers indicates a respective pixel within the background image has been updated at least a predetermined number of times.

12. The method according to claim **1**, further comprising

identifying the drop in the image and a predetermined band near an edge of the drop; and

initializing a background image by setting each pixel of the background image to the image unless it is within the identified drop or the predetermined band near the edge of the drop.

13. The method according to claim **12**, further comprising setting a pixel of the background image to a predetermined value if a corresponding pixel of the image is within the identified drop or the predetermined band near the edge of the drop.

14. The method according to claim **13**, wherein the corresponding pixel of the image has a location corresponding to a location of the pixel of the background image.

15. The method according to claim **1**, further comprising determining the baseline corresponding to an opening of the drip chamber.

16. The method according to claim **1**, wherein the act of determining the subset of pixels within the plurality of pixels of interest that corresponds to the drop includes determining each of the plurality of pixels of interest is within the subset of pixels if the respective pixel of the plurality of pixels of interest has a contiguous path back to the baseline of the drop forming at an opening of the drip chamber.

17. The method according to claim **1**, further comprising:

capturing a first image using an image sensor;

identifying the drop within the first image and a predetermined band near an edge of the drop;

initializing a background image by setting each pixel to the first image unless it is within the identified drop or the predetermined band near the edge of the drop;

setting pixels within a region of the drop or within the predetermined band to a predetermined value;

initializing an array of integers; and

initializing an array of variances.

18. The method according to claim **17**, further comprising updating the background image, the array of integers, and the array of variances using the image.

19. The method according to claim **1**, the method further comprising the act of remotely controlling the flow rate by a monitoring client.

20. The method according to claim **19**, wherein the monitoring client is a tablet.

21. A flow meter, comprising:

an image sensor having a field of view and operatively coupled to the support member, wherein the image sensor is positioned to view a drip chamber within the field of view; and